To: Monson, Phil (MPCA)[phil.monson@state.mn.us]
From: Mount, Dave
Sent: Thur 2/6/2014 10:23:04 PM
Subject: FW: Thanks, and updated wild rice data

Didn't immediately notice you weren't copied on this.

Dave

From: Mount, Dave
Sent: Thursday, February 06, 2014 1:18 PM
To: 'Swain, Ed (MPCA)'; Erickson, Russell
Subject: RE: Thanks, and updated wild rice data

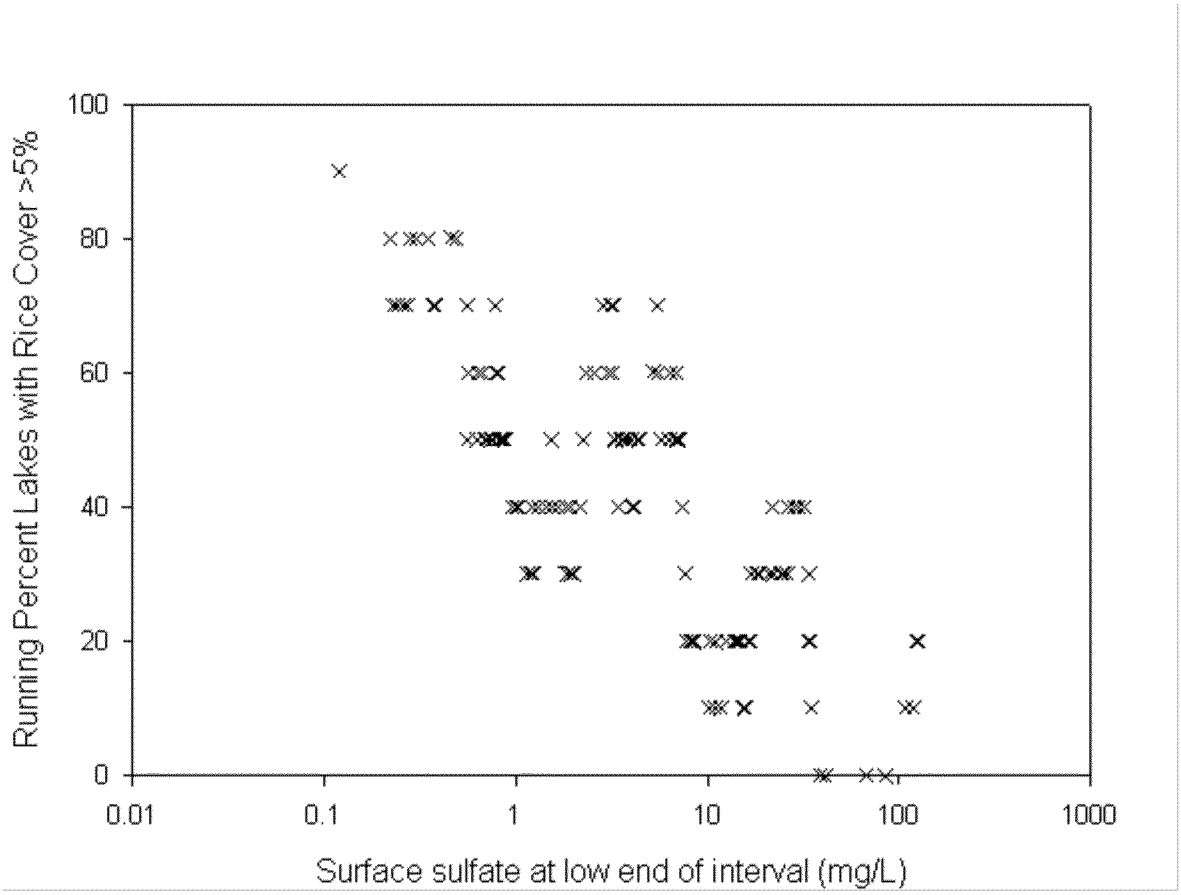
Hey Ed—

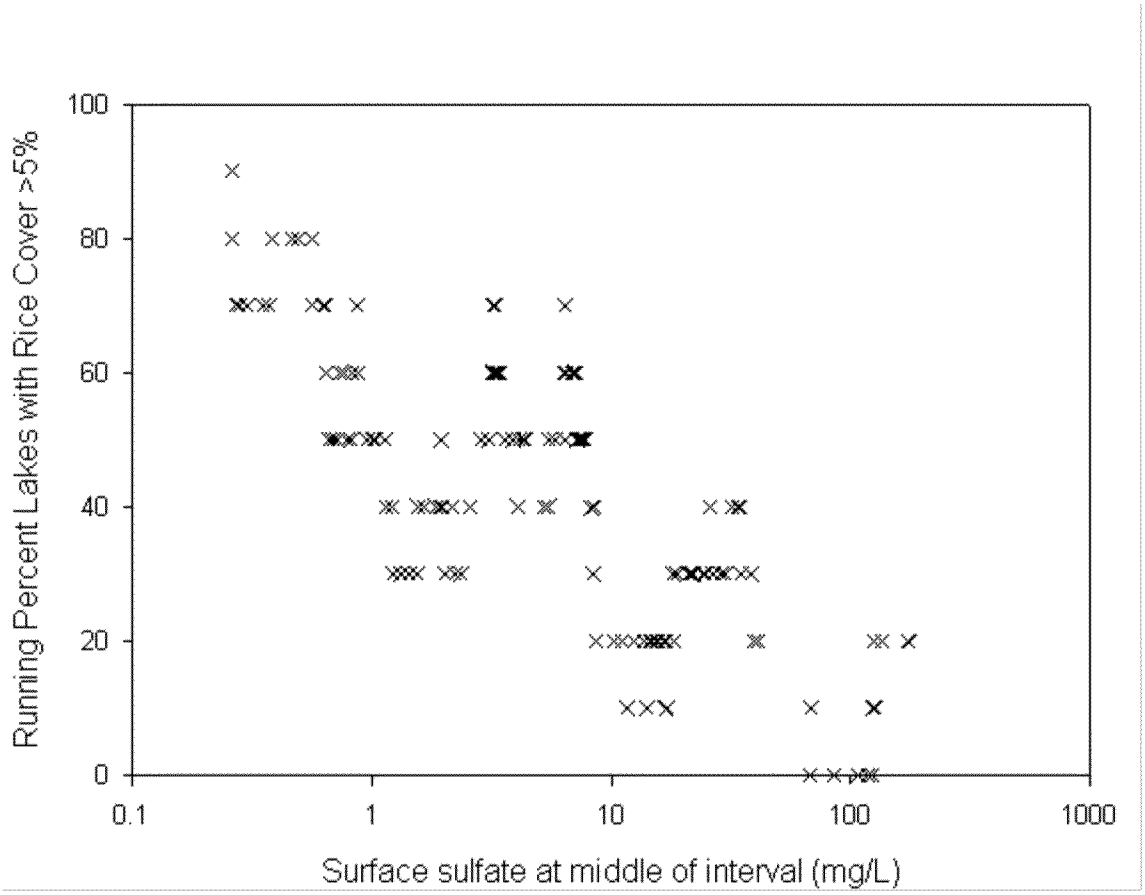
I decided to explore another idea we talked about Tuesday. I ordered the lake data by surface water sulfate, then calculated the percent of lakes within a 10-lake span that had rice cover > 5%. I then plotted that "running average" as a function of sulfate, either at the low end, middle, or high end of the 10-lake range, see below. I think this tells a story similar to the histograms I showed at the meeting, though it might provide more evidence as to where breakpoints might exist (e.g., circa 10 mg/L . . .). Similar things could be done for IW sulfide, though I've not done it.

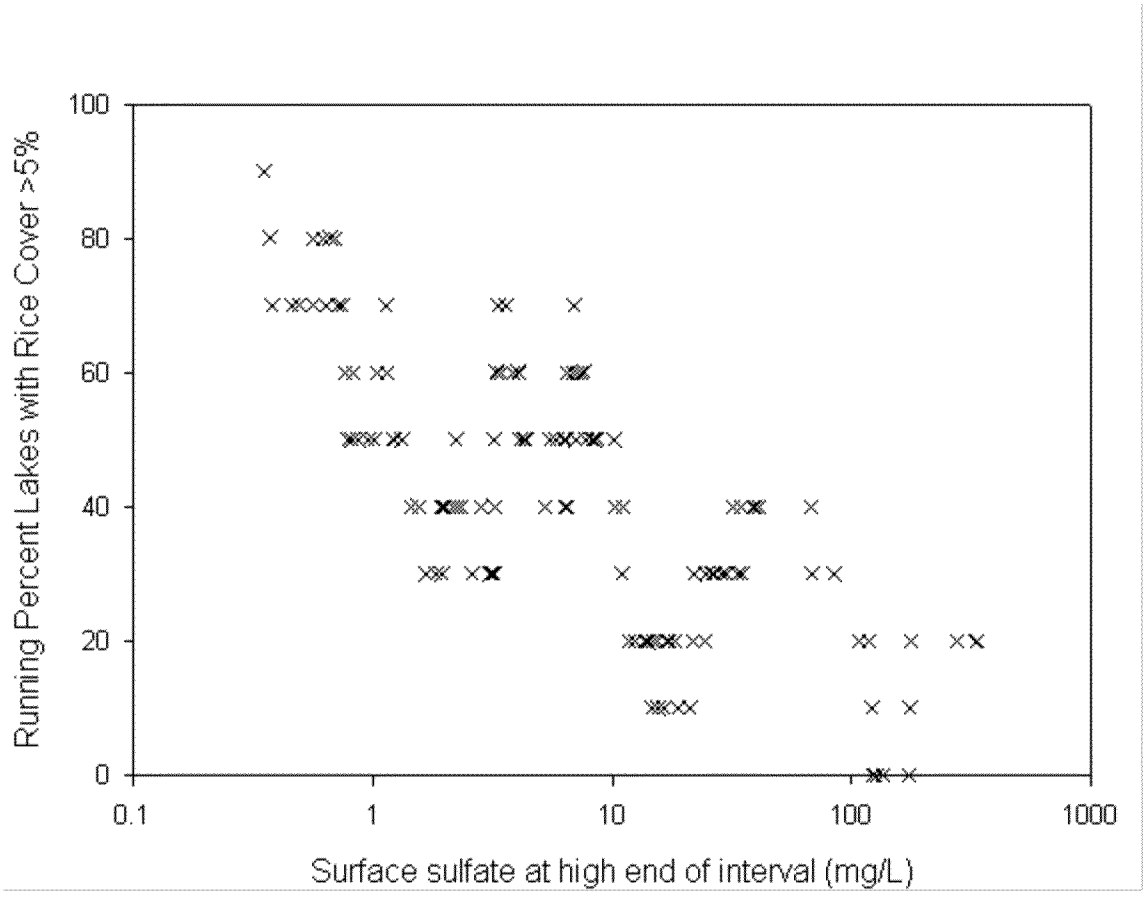
One note: there were a number (maybe 20) lakes where sulfate was just given as <0.5. I excluded those from these plots because I didn't know how or where to include them, but that's a problem that may have to be addressed as part of any further exploration of this approach.

I have one other idea about how to address selecting cutpoints, but it will have to wait until I have more time.

Dave


Running Percent Lakes with Rice Cover >5%
100
80
60
40
20
0
0.01
0.1
1
10
100
1000
Surface sulfate at low end of interval (mg/L)


Running Percent Lakes with Rice Cover >5%
100
80
60
40
20
0
0.1
1
10
100
1000
Surface sulfate at middle of interval (mg/L)



From: Swain, Ed (MPCA) [mailto:edward.swain@state.mn.us]
Sent: Wednesday, February 05, 2014 6:00 PM
To: Erickson, Russell; Mount, Dave
Subject: Thanks, and updated wild rice data

Dave and Russ,

We got a lot out of our discussion yesterday—thank you very much. Phil and I are going to rapidly push ahead with a lot of analysis, thought, and writing.

Attached is the updated file that was distributed to our advisory group last week. We caught a lot of errors after we started analyzing it, ranging from missing information to the 2x error in the sulfide. I think it is in pretty good shape now.

Please be tempted to do some more fiddling with the data!

Ed

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Edward Swain, Ph.D.

Research Scientist

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St. Paul, Minnesota

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